

Touch screen based Nurse/attendant calling system for physically impaired.

The project mainly aims in designing a system which is capable of helping patients to call nurse/attendants in case of emergencies through touch. As it is a touch screen there is no need of applying any strength, patient can just touch the screen. This reduces the time consumption and helps the nurse to attend patient in time, So that the patient can get the treatment with in time at the time of emergencies.

Touch screens provides fast access to any and all types of digital media, with no text-bound interface getting in the way. Faster input can mean better service. Using a touch interface can effectively increase operator accuracy, reduce training time, and improve overall operational efficiencies, a properly designed touch interface can improve each operator's accuracy. Touch screens are practical in automation, which has become even simpler with touch screen technology. Owners familiar with the icon system appreciate touch screens that make automation systems user friendly.

The device consists of a microcontroller, which is interfaced with the input and output modules, the controller acts as an intermediate medium between both of them. So the controller can be termed as a control unit. The input module is nothing but a touch screen sensor, which takes the input from the patient and provides the same to the microcontroller. The output module is the RF module. The controller also takes the responsibility to display the message from the patient on the graphical LCD, which is placed in the nurse room.

Features:

1. Touch screen based user-friendly interfacing.
2. Low power consumption.
3. Wireless communication.
4. Emergency calling system.

This project provides exposure to the following technologies:

1. Touch screen sensor.
2. Interfacing of Touch screen sensor with microcontroller.
3. Embedded C programming.
4. Conversion of AC supply to DC supply.
5. Design of PCB.
6. Graphical LCD interfacing.
7. RF technology.

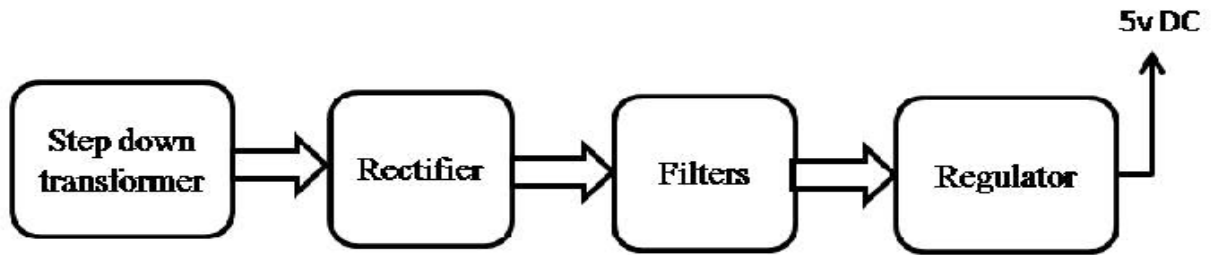
The major building blocks of this project are:

1. Regulated power supply.
2. Touch screen sensor.
3. Graphical LCD.
4. Two Microcontrollers Modules.
5. RF Transmitter.
6. RF Receiver.
7. Reset.
8. Crystal oscillator.
9. LED indicators.

Software's used:

1. PIC-C compiler for Embedded C programming.
2. PIC kit 2 programmer for dumping code into Micro controller.
3. Express SCH for Circuit design.
4. Proteus for hardware simulation.

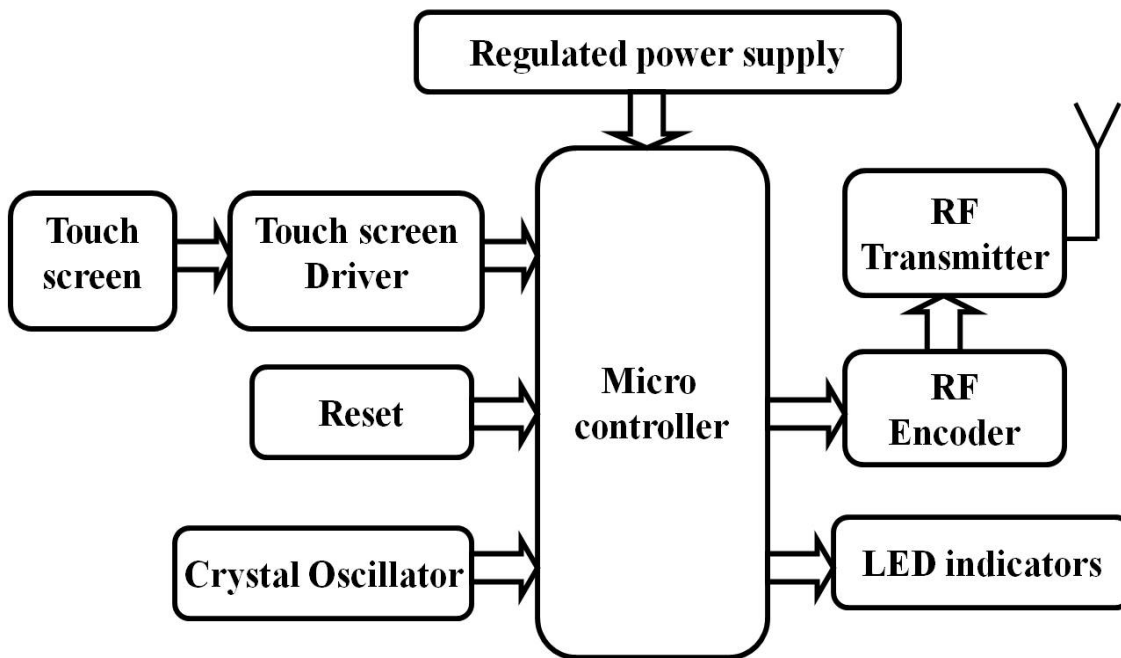
Regulated Power Supply:



Block diagram:

Touch screen based Nurse/attendant calling system for physically impaired.

1. Transmitter



Touch screen based Nurse/attendant calling system for physically impaired.

2. Receiver

